

AMENDMENT IN THE CLAIMS

Please amend claims 9, 18, 19, 25, 26, 30 and 32 to read as follows:

Claim 1-8. (Canceled)

1 9. (Currently Amended) A method for manufacturing an optical fiber preform, comprising
2 the steps of:

3 depositing a clad layer and a core layer on an inner surface of a preform tube by using a first
4 heater, ~~thereby forming~~ to form a deposited tube;

5 shrinking one end of the deposited tube by using said first heater, ~~thereby sealing~~ to seal the
6 one end of the deposited tube;

7 arranging the deposited tube having the sealed end and an open end ~~in such a fashion that it~~
8 ~~extends~~ vertically through a circular heater by making the sealed end the upper end;

9 moving the circular heater to said one end of the deposited tube, and then adjusting a heating
10 temperature of the circular heater to be not lower than a softening point of the deposited tube; and

11 shrinking and closing the deposited tube by heating the deposited tube while moving the
12 circular heater at a desired speed and rotating the deposited tube, wherein a flame pressure of said
13 circular heater during the shrinking and closing step is higher than a flame pressure of said first
14 heater during the deposition step.

1 10.(Previously Presented) The method according to claim 9, further comprising the step of:
2 after the arranging step, removing a contaminant existing in an interior of the deposited tube.

1 11.(Previously Presented) The method according to claim 9, wherein the shrinking and
2 closing step is carried out under the condition in which the deposited tube rotates around its
3 cylindrical axis, and an interior of the deposited tube is maintained at a negative pressure.

1 12.(Previously Presented) The method according to claim 9, wherein the circular heater is
2 a furnace, and inert gas is supplied to the furnace to prevent an oxidation of the furnace at a heat
3 generating region.

1 13.(Previously Presented) The method according to claim 9, wherein the shrinking and
2 closing step further comprises the step of removing a moisture in an interior of the deposited tube.

Claim 14-17. (Canceled)

1 18.(Currently Amended) A method for manufacturing an optical fiber preform, comprising
2 the steps of:
3 preparing a deposited tube by depositing a clad layer and a core layer on an inner surface of
4 a horizontally arranged preform tube;
5 sealing one end of the deposited tube;
6 attaching a rod to said one end of the deposited tube;
7 arranging the rod-joined deposited tube vertically while the rod is upwardly directed and
8 arranging a circular heater around the tube;

9 removing a contaminant from an interior of the deposited tube;

10 placing the circular heater above said one end of the deposited tube and adjusting a
11 temperature of the circular heater to a temperature not lower than a softening point of the deposited
12 tube and maintaining this temperature until the temperature is stabilized;

13 applying negative pressure to the interior of the deposited tube using a vacuum pump; and

14 shrinking the deposited tube while rotating the deposited tube and moving the circular heater
15 from said one end to an unsealed end of the deposited tube simultaneously with the applying step.

1 19. (Currently Amended) The method of claim 18, wherein said step of preparing a deposited
2 tube further ~~comprising~~: comprises injecting a gas for forming a deposit into a first end of the
3 preform tube and exhausting gas through a second end of the preform tube[[:]] and said step of
4 sealing one end ~~comprising~~ comprises sealing said second end of the preform tube.

1 20. (Original) The method of claim 18, said step of shrinking the deposited tube further
2 comprising rotating the tube at a rate of less than approximately 10 rpm.

1 21. (Original) The method of claim 18, further comprising the step of:
2 repeating said step of shrinking the deposited tube.

1 22.(Previously Presented) The method of claim 18, wherein the circular heater comprises a
2 furnace.

1 23. (Original) The method of claim 22, further comprising the step of:
2 supplying an inert gas to said furnace for preventing oxidation of the furnace.

1 24.(Previously Presented) The method of claim 18, wherein the removing step further
2 comprises the steps of:

3 moving the circular heater to the one end of the deposited tube, and then adjusting the heating
4 temperature of the circular heater to be lower than a softening point of the deposited tube; and
5 heating the deposited tube while moving the circular heater at a desired speed, thereby
6 exhausting contaminants existing in the interior of the deposited tube.

1 25.(Currently Amended) The method of claim 18, said step of shrinking the ~~circular heater~~
2 deposited tube further comprising:

3 injecting chlorine gas into the deposited tube.

1 26.(Currently Amended) A method for manufacturing an optical fiber preform, comprising
2 the steps of:

3 depositing a clad layer and a core layer on an inner surface of a preform tube in a horizontal
4 lathe, ~~thereby forming~~ to form a deposited tube;

5 shrinking one end of the deposited tube, ~~thereby sealing~~ to seal the one end of the deposited
6 tube;

7 attaching a rod to said one end of the deposited tube;

8 separating the deposited tube attached to said rod from said horizontal lathe;

9 mounting the deposited tube attached to said rod in a vertical lathe ~~in such a fashion that it~~
10 ~~extends vertically~~ through a circular heater while the rod is upwardly directed;

11 placing the circular heater around said one end of the deposited tube;

12 setting a heating temperature of the circular heater to a first heating temperature which is
13 lower than the softening point of the deposited tube;

14 heating the deposited tube while moving the circular heater with said first heating
15 temperature from said one end of the deposited tube to an unsealed end of the deposited tube at a
16 desired speed while rotating the deposited tube and applying negative pressure to a hollow of the
17 deposited tube;

18 moving the circular heater from said unsealed end to said one end of the deposited tube;

19 setting a heating temperature of the circular heater to a second heating temperature which is
20 not lower than the softening point of the deposited tube;

21 maintaining said second heating temperature until a said temperature stability is stabilized
22 obtained; and

23 shrinking the deposited tube by moving the circular heater with said second heating
24 temperature from said one end to said unsealed end of the deposited tube at a desired speed while
25 rotating the deposited tube and applying negative pressure to said hollow of the deposited tube.

1 27.(Previously Presented) The method according to claim 26, wherein the desired speed in
2 the heating step is in the range of 20 to 40 mm/min.

1 28.(Previously Presented) The method according to claim 26, further comprising the step
2 of removing moisture generated in the interior of the deposited tube due to heat of the circular heater.

1 29.(Previously Presented) The method according to claim 28, wherein the step of removing
2 moisture further comprises the step of supplying chlorine gas to said hollow of the deposited tube.

1 30.(Currently Amended) The method according to claim 26, wherein said step of shrinking
2 the deposited tube further comprising the step of comprises rotating the deposited tube about its
3 cylindrical axis simultaneously with the step of shrinking at a rate of less than approximately 10 rpm.

1 31.(Previously Presented) The method according to claim 26, further comprising the step
2 of:
3 repeating the step of shrinking.

1 32.(Currently Amended) The method according to claim 10, wherein the step of removing
2 the contaminant further comprises the steps of:
3 placing the circular heater to the one end of the deposited tube, and then adjusting the heating
4 temperature of the circular heater to be lower than the softening point of the deposited tube; and
5 heating the deposited tube while moving the circular heater at a desired speed, ~~thereby~~
6 ~~exhausting contaminants~~ to exhaust the contaminant existing in the interior of the deposited tube.

1 33.(Previously Presented) The method according to claim 13, wherein the step of removing
2 a moisture further comprises the step of supplying chlorine gas to the interior of the deposited tube.